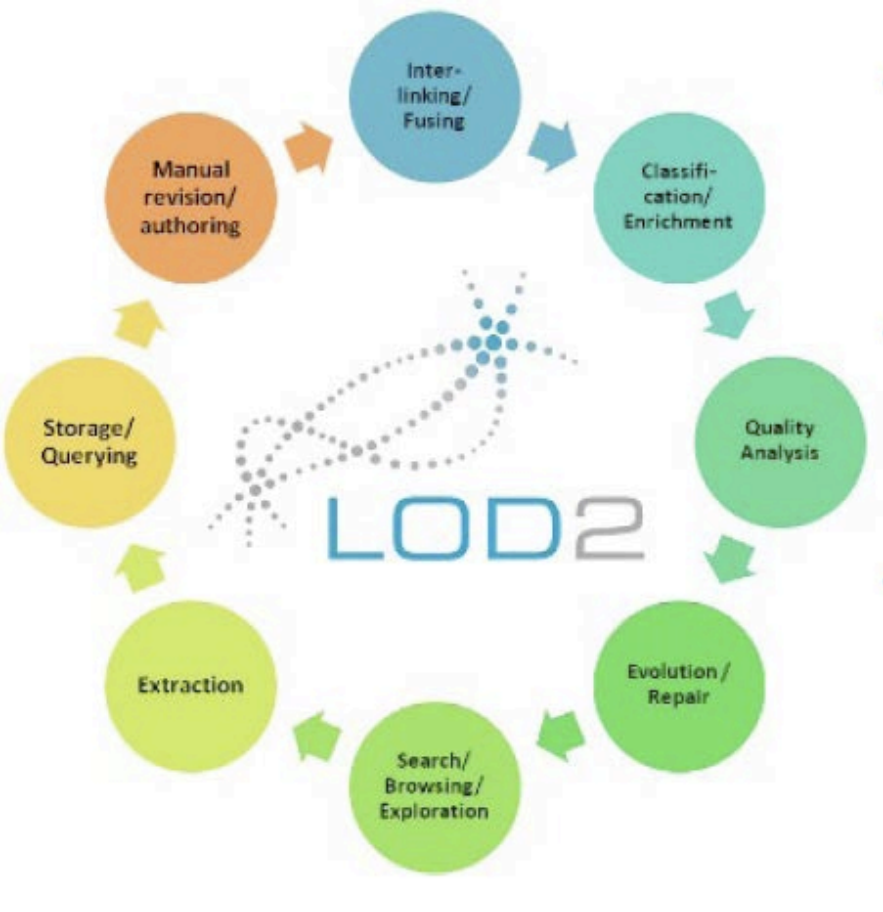
Workshops and Tutorials
Sunday 27th May

Workshop Chairs: Raphaël Troncy, Alexandre Passant
Tutorial Chairs: Irini Fundulaki, Emanuele Della Valle

Sunday, May 27th

- **Creating Knowledge out of Interlinked Data: The LOD2 Tool Stack** *by Sebastian Tramp, Bert Van Nuffelen & Sören Auer (morning session)*
- **Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data** *Manolis Koubarakis, Kostis Kyzirakos & Manos Karpathiotakis (afternoon session)*
- **The Web of Data for E-Commerce in Brief** *by Martin Hepp (afternoon session)*

Creating Knowledge out of Interlinked Data: The LOD2 Tool Stack



- The LOD2 Stack is an **integrated distribution** of aligned tools
- The LOD2 Stack supports the complete **Linked Data life-cycle**
- After attending this tutorial, you are able to **create, author, interlink & maintain Linked Data**

Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data

- ***Why this tutorial:***
  - Lots of geospatial data available on the Web
  - Lots of public data coming out of open government initiatives is geospatial.
  - Lots of this public data is quickly being transformed into linked data and developers have started building applications with them.

Google Maps™ GeoNames TELEIOS bing maps™ OS OpenData™

Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data

- Basic concepts from Geographical Information Systems
- Relevant Open Geospatial Consortium standards
- Linked geospatial data
  - Data models and query languages
  - Implemented systems
  - Applications

The Web of Data for E-Commerce in Brief

- ***GoodRelations ontology*** used for applying Semantic Web Technology to ***business challenges***.
  - ***Conceptual Structures*** of the Ontology
  - Tool Chain for ***producing*** and ***consuming*** GoodRelations-related data
  - ***Long-term vision*** of Linked Open Commerce
  - Discuss the challenges for ***future research*** in the field and ***advanced topics*** such as access control, and other data management issues

What's on Today?

- **6 Workshops**
  - Morning: Semantic big data processing (SBPM)
  - Morning: Data or knowledge? (Know)
  - Full Day: The RDF and REST love story (LAPIS)
  - Full Day: How to discover resources? (RED)
  - Full Day: Interoperability in Medical Informatics (SIMI)
  - Afternoon: Finance and Economics on the SW (FEOSW)

Semantic BPM workshop – 7 years of evolvement

(BIG (STREAMING)) DATA

(Light-weight (real-time)) SEMANTICS

Social/ Open streams

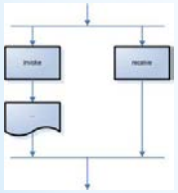
Process data

Process models

facebook

twitter

Bus. Environment/ People



Business Process

Business Context/ IoT

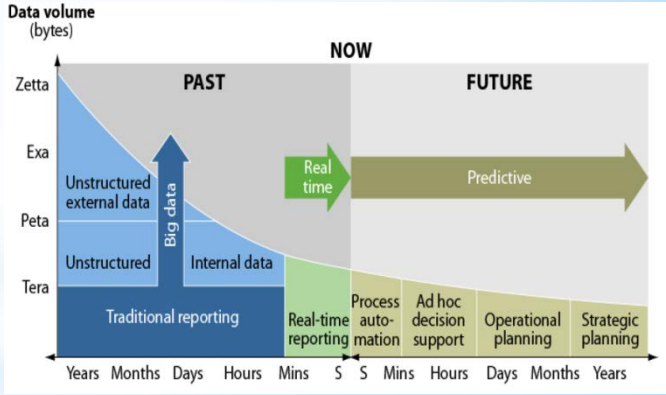
Semantics for better modeling

Semantics for more efficient execution

Semantics for more precise prediction

Predictive business analytics

Complex Event Processing



Filtering/Retrieval

(real-time (ahead of)) TIME

2006 2007 2008 2009 2010 2011 2012

Learn: What is challenging for the Semantic Big Data Processing

Understand: How to extract and use semantics in informal business processes

See: How Smartphone is sending semantic events about missing calls

Try: How semantics supports processing in an AR (Augmented Reality) system

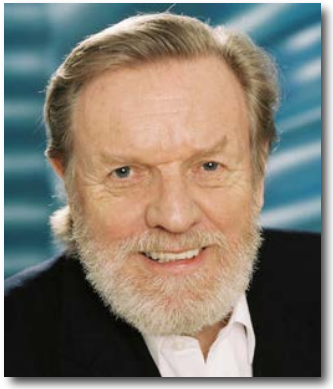
Discuss: Why is Business Process Management (still) one of the most promissing application area for semantic technologies

7th Semantic BPM workshop

1982

"We are drowning in data, but starving for **knowledge**"

John Naisbitt



2001

„Properly designed, the Semantic Web can assist the evolution of human **knowledge** as a whole."

Tim Berners-Lee, James Hendler, and Ora Lassilla

2012

17 paper titles with "data"

1 paper title with **"knowledge"**

(ESWC Conference Program)

Room Thalia, 9:30 – 13:00
Know@LOD 2012: Come to where the knowledge is.

Did you notice?

Services are in a relationship with
The Semantic Web and it's complicated.

Like Send 17 likes. Sign Up to see what your friends like.

We did.
And that's why we need you.

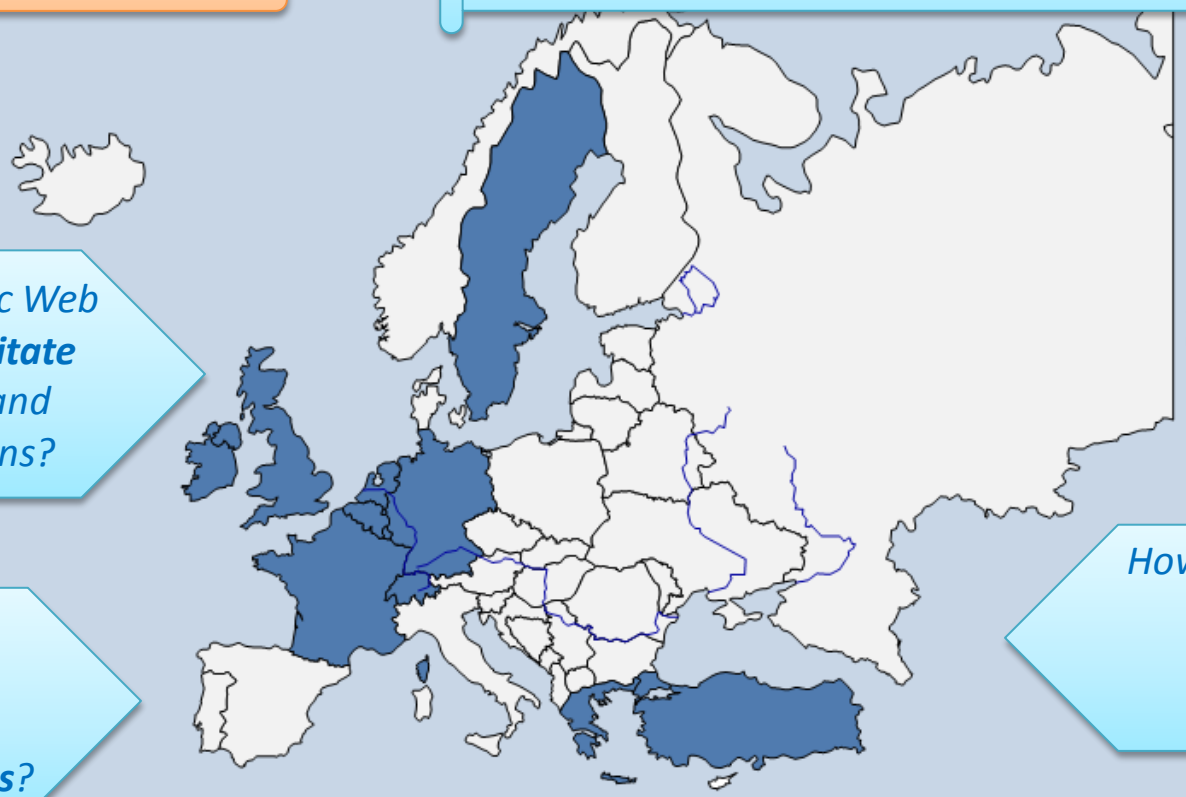
Join the LAPIS workshop
to discuss why you hate services
and the Semantic Web…

…or why you'd love
to see them work together.

RED
REsource Discovery
the Gene Ontology

Semantic Interoperability in Medical Informatics

*Experts and Researchers from **11 countries** present **8 papers** and **5 European projects***



SIMI2012

SUNDAY
27TH MAY 2012
HERAKLEION

*How can Semantic Web technologies **facilitate clinical research** and healthcare domains?*

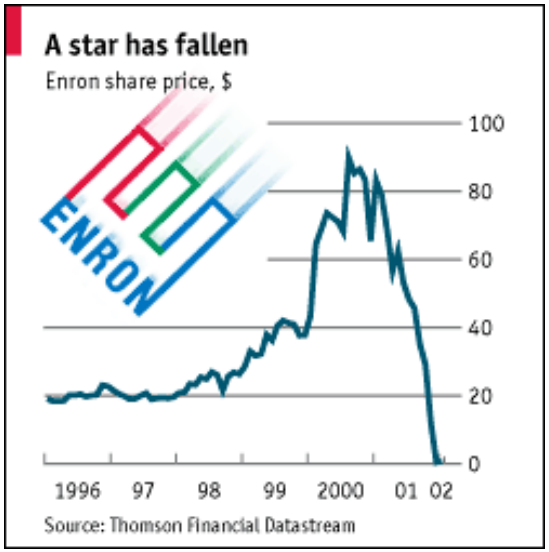
*Which are the **challenges stemming from medical semantics**?*

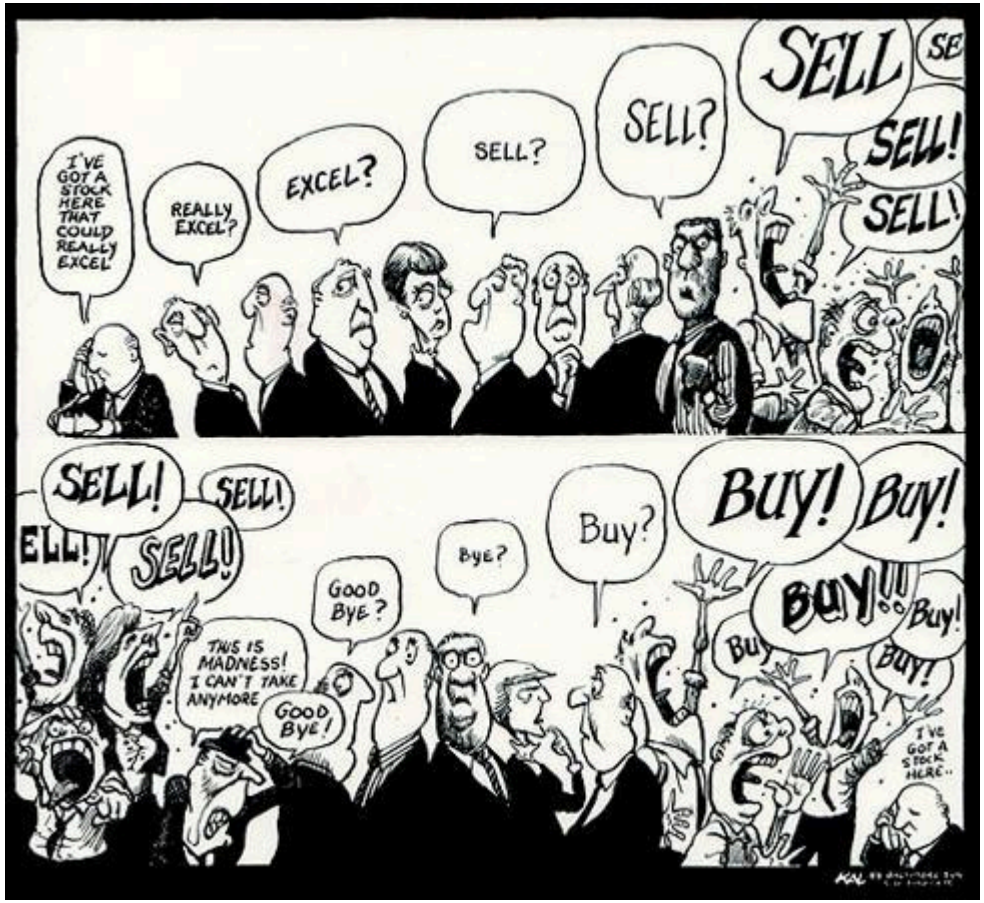
*How can Semantic Web **boost Knowledge Extraction in life sciences**?*

- Knowledge Inference
- Semantic Reasoning
- Knowledge Acquisition
- Clinical Decision Support
- Speculative Sentences Annotation
- Knowledge Editing
- Biomedical Knowledge Evolution and Mapping Maintenance
- Ontology Mapping
- Secondary Use of Electronic Health Records
- Clinical Research vs EHRs and Heterogeneity
- Convergence of Clinical Research and Clinical Care

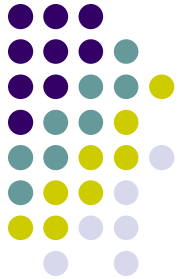
1st International Workshop on Finance and Economics on the Semantic Web (FEOSW): Yet Another Margin Call

Financial Information: Crystal Clear?





Semantic Web and Financial Information



- Linked Data can provide a reliable mechanism to share and spread Financial Information under a number of conventios
- Necessary standardization of Financial Information for shareholders and stakeholders

Yet another Margin Call?

What and Where

Tutorials & Workshops:
Sunday, May 27th, 2012

ROOM	HERMES	CLIO	EFTERPI	THALIA	MELPO	KALIA	ERATO	POLYMNEA	OURANIA	APOLLON
9:00 - 09:30	**Plenary: Highlights of the Day** Session Chairs: Alexandre Passant | RaphaëlTroncy | Emanuella della Valle | Irini Fundulaki									OWLED Workshop
9:30 - 10:30		Tutorial 1: Creating Knowledge out of Interlinked Data: The LOD2 Tool Stack	Workshop 1 SBPM: Semantic Business Process Management	Workshop 2 KNOW: Knowledge Discovery and Data Mining Meets Linked Open Data	Workshop 3 LAPIS: Linked APIs for the Semantic Web: An essential problem in need of a fresh look	Workshop 4 RED: REsource Discovery			Workshop 5 SIMI: Semantic Interoperability in Medical Informatics	
10:30 - 11:00	COFFEE BREAK									
11:00 - 12:30		Tutorial 1: Creating Knowledge out of Interlinked Data: The LOD2 Tool Stack	Workshop 1 SBPM: Semantic Business Process Management	Workshop 2 KNOW: Knowledge Discovery and Data Mining Meets Linked Open Data	Workshop 3 LAPIS: Linked APIs for the Semantic Web: An essential problem in need of a fresh look	Workshop 4 RED: REsource Discovery			Workshop 5 SIMI: Semantic Interoperability in Medical Informatics	OWLED Workshop
12:30 - 14:00	LUNCH BREAK									
14:00 - 15:30		Tutorial 2: The Web of Data for E-Commerce in Brief - Good Relations	Tutorial 3: Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data	Workshop 6 FEOSW: Finance and Economics on the Semantic Web	Workshop 3 LAPIS: Linked APIs for the Semantic Web: An essential problem in need of a fresh look	Workshop 4 RED: REsource Discovery			Workshop 5 SIMI: Semantic Interoperability in Medical Informatics	OWLED Workshop
15:30 - 16:00	COFFEE BREAK									
16:00 - 17:30		Tutorial 2: The Web of Data for E-Commerce in Brief - Good Relations	Tutorial 3: Data models, Query Languages, Implemented Systems and Applications of Linked Geospatial Data	Workshop 6 FEOSW: Finance and Economics on the Semantic Web	Workshop 3 LAPIS: Linked APIs for the Semantic Web: An essential problem in need of a fresh look	Workshop 4 RED: REsource Discovery			Workshop 5 SIMI: Semantic Interoperability in Medical Informatics	OWLED Workshop